

## Material Safety Data Sheet

Version 4.3  
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## 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Palmitic acid

Product Number : P0500  
Brand : Sigma

Supplier : Sigma-Aldrich  
3050 Spruce Street  
SAINT LOUIS MO 63103  
USA

Telephone : +1 800-325-5832  
Fax : +1 800-325-5052  
Emergency Phone # (For both supplier and manufacturer) : (314) 776-6555

Preparation Information : Sigma-Aldrich Corporation  
Product Safety - Americas Region  
1-800-521-8956

## 2. HAZARDS IDENTIFICATION

## Emergency Overview

OSHA Hazards  
IrritantGHS Classification  
Skin irritation (Category 3)  
Eye irritation (Category 2A)

## GHS Label elements, including precautionary statements

Pictogram



Signal word : Warning

Hazard statement(s)  
H316 Causes mild skin irritation.  
H319 Causes serious eye irritation.Precautionary statement(s)  
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

## HMIS Classification

Health hazard: 2  
Flammability: 1  
Physical hazards: 0

## NFPA Rating

Health hazard: 2  
Fire: 1  
Reactivity Hazard: 0

## Potential Health Effects

Inhalation : May be harmful if inhaled. Causes respiratory tract irritation.

Skin  
Eyes  
IngestionMay be harmful if absorbed through skin. Causes skin irritation.  
Causes eye irritation.  
May be harmful if swallowed.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms : Hexadecanoic acid

Formula : C<sub>16</sub>H<sub>32</sub>O<sub>2</sub>

Molecular Weight : 256.42 g/mol

| Component     | Concentration |
|---------------|---------------|
| Palmitic acid |               |
| CAS-No.       | 57-10-3       |
| EC-No.        | 200-312-9     |

## 4. FIRST AID MEASURES

## General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

## If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

## In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

## In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

## If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

## 5. FIREFIGHTING MEASURES

## Conditions of flammability

Not flammable or combustible.

## Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

## Special protective equipment for firefighters

Wear self contained breathing apparatus for fire fighting if necessary.

## Hazardous combustion products

Hazardous decomposition products formed under fire conditions. - Carbon oxides

## 6. ACCIDENTAL RELEASE MEASURES

## Personal precautions

Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Avoid breathing dust.

## Environmental precautions

Do not let product enter drains.

## Methods and materials for containment and cleaning up

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

## 7. HANDLING AND STORAGE

## Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols.  
Provide appropriate exhaust ventilation at places where dust is formed.

#### Conditions for safe storage

Keep container tightly closed in a dry and well-ventilated place.

### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Contains no substances with occupational exposure limit values.

#### Personal protective equipment

##### Respiratory protection

For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

##### Hand protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

##### Immersion protection

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: > 480 min

Material tested: Dermatrill® (Aldrich Z677272, Size M)

##### Splash protection

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: > 30 min

Material tested: Dermatrill® (Aldrich Z677272, Size M)

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 873000, e-mail sales@kcl.de, test method: EN374

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an Industrial Hygienist familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

##### Eye protection

Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

##### Skin and body protection

impervious clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

##### Hygiene measures

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

#### Appearance

|        |        |
|--------|--------|
| Form   | flakes |
| Colour | white  |

#### Safety data

|                              |   |
|------------------------------|---|
| pH                           | no data available   |
| Melting point/freezing point | Melting point/range: 61 - 62.5 °C (142 - 144.5 °F) - lit. |
| Boiling point                | 271.5 °C (520.7 °F) at 133 hPa (100 mmHg) - lit.          |
| Flash point                  | 206 °C (403 °F) - closed cup                              |

|  |                                     |
|--|-------------------------------------|
| Ignition temperature                   | no data available                   |
| Autoignition temperature               | no data available                   |
| Lower explosion limit                  | no data available                   |
| Upper explosion limit                  | no data available                   |
| Vapour pressure                        | 13 hPa (10 mmHg) at 210 °C (410 °F) |
| Density                                | 0.852 g/cm3 at 25 °C (77 °F)        |
| Water solubility                       | no data available                   |
| Partition coefficient: n-octanol/water | no data available                   |
| Relative vapour density                | no data available                   |
| Odour                                  | no data available                   |
| Odour Threshold                        | no data available                   |
| Evaporation rate                       | no data available                   |

### 10. STABILITY AND REACTIVITY

#### Chemical stability

Stable under recommended storage conditions.

#### Possibility of hazardous reactions

no data available

#### Conditions to avoid

no data available

#### Materials to avoid

Strong oxidizing agents, Strong reducing agents, Bases

#### Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides  
Other decomposition products - no data available

### 11. TOXICOLOGICAL INFORMATION

#### Acute toxicity

##### Oral LD50

LD50 Oral - rat - > 10,000 mg/kg

##### Inhalation LC50

no data available

##### Dermal LD50

no data available

#### Other information on acute toxicity

no data available

#### Skin corrosion/irritation

Skin - Human - Mild skin irritation - 3 h

#### Serious eye damage/eye irritation

Eyes - rabbit - No eye irritation - OECD Test Guideline 405

#### Respiratory or skin sensitization

no data available

#### Germ cell mutagenicity

no data available

## Carcinogenicity

Carcinogenicity - mouse - Implant

Tumorigenic:Neoplastic by RTECS criteria. Kidney, Ureter, Bladder:Tumors.

|        |   |
|--------|---|
| IARC:  | No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC. |
| ACGIH: | No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.            |
| NTP:   | No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.                 |
| OSHA:  | No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.             |

## Reproductive toxicity

no data available

## Teratogenicity

no data available

## Specific target organ toxicity - single exposure (Globally Harmonized System)

no data available

## Specific target organ toxicity - repeated exposure (Globally Harmonized System)

no data available

## Aspiration hazard

no data available

## Potential health effects

|            |  |
|------------|--|
| Inhalation | May be harmful if inhaled. Causes respiratory tract irritation.  |
| Ingestion  | May be harmful if swallowed.                                     |
| Skin       | May be harmful if absorbed through skin. Causes skin irritation. |
| Eyes       | Causes eye irritation.   |

## Signs and Symptoms of Exposure

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

## Synergistic effects

no data available

## Additional Information

RTECS: RT4550000

## 12. ECOLOGICAL INFORMATION

### Toxicity

no data available

### Persistence and degradability

no data available

### Bioaccumulative potential

no data available

### Mobility in soil

no data available

### PBT and vPvB assessment

no data available

### Other adverse effects

no data available

## 13. DISPOSAL CONSIDERATIONS

### Product

Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

### Contaminated packaging

Dispose of as unused product.

## 14. TRANSPORT INFORMATION

### DOT (US)

Not dangerous goods

### IMDG

Not dangerous goods

### IATA

Not dangerous goods

## 15. REGULATORY INFORMATION

### OSHA Hazards

Irritant

### SARA 302 Components

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

### SARA 313 Components

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

### SARA 311/312 Hazards

Acute Health Hazard

### Massachusetts Right To Know Components

No components are subject to the Massachusetts Right to Know Act.

### Pennsylvania Right To Know Components

|               | CAS-No. | Revision Date |
|---------------|---------|---------------|
| Palmitic acid | 57-10-3 |               |

### New Jersey Right To Know Components

|               | CAS-No. | Revision Date |
|---------------|---------|---------------|
| Palmitic acid | 57-10-3 |               |

### California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

## 16. OTHER INFORMATION

### Further information

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The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Corporation and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See [www.sigma-aldrich.com](http://www.sigma-aldrich.com) and/or the reverse side of invoice or packing slip for additional terms and conditions of sale.

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